

Substitute Form PTO-1449
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Patent and Trademark Office

Attorney's Docket No.

08987-023001

Application No.

10/780,507

**Information Disclosure Statement
by Applicant**

(Use several sheets if necessary)

Applicant

Mullins *et al.*

Filing Date

February 17, 2004

Group Art Unit

1648

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AE							
	AF							
	AG							
	AH							
	AI							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
/BP/	AJ	Kuiken <i>et al.</i> , "HIV Sequence Compendium, Part II. HIV-1/SIVcpz Complete Genomes" 279-466 (2001)
	AK	
	AL	
	AM	

Examiner Signature

/Bo Peng/

Date Considered

01/02/2008

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified) Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 08987-023001	Application No. 10/780,507
	Applicant Mullins <i>et al.</i>		
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							Yes	No
/BP/	AA	WO 01/60838	08/23/2001	WIPO				
/BP/	AB	WO 00/29561	05/25/2000	WIPO				

Other Documents (include Author, Title, Date, and Place of Publication)		
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/BP/	BA	Ahlers <i>et al.</i> , "Enhanced immunogenicity of HIV-1 vaccine construct by modification of the native peptide sequence," <i>Proc. Natl. Acad. Sci. USA</i> 94:10856-10861 (1997)
	BB	Akaike, "A New Look at the Statistical Model Identification," <i>IEEE Trans. Atom. Contr.</i> 19:716-723 (1974)
	BC	Altschul <i>et al.</i> , "Basic local alignment search tool," <i>J. Mol. Biol.</i> 215:403-410 (1990)
	BD	Anderson, "Human gene therapy," <i>Nature</i> 392(Suppl):25-30 (1998)
	BE	Anderson, "Testing the Hypothesis of a Recombinant Origin of Human Immunodeficiency Virus Type 1 Subtype E," <i>J. Virol.</i> 74(22):10752-10765 (2000)
	BF	Andre <i>et al.</i> , "Increased Immune Response Elicited by DNA Vaccination with a Synthetic gp 120 Sequence with Optimized Codon Usage," <i>J. Virol.</i> 74(2):1497-1503 (1990)
	BG	Avise <i>et al.</i> , "Phylogenetics and the origin of species," <i>Proc. Natl. Acad. Sci. USA</i> 94(15):7748-7755 (1997)
	BH	Barnett <i>et al.</i> , "Vaccination with HIV-1 gp120 DNA induces immune responses that are boosted by a recombinant gp120 protein subunit," <i>Vaccine</i> 15:869-873 (1997)
	BI	Barouch <i>et al.</i> , "Control of viremia and prevention of clinical AIDS in rhesus monkeys by cytokine-augmented DNA vaccination," <i>Science</i> 290:486-492 (2000)
	BJ	Beaumont, "Detecting Population Expansion and Decline Using Micro satellites," <i>Genetics</i> 153(4):2013-2029 (1999)
	BK	Beddows <i>et al.</i> , "Comparison of the Antibody Repertoire Generated in Healthy Volunteers following Immunizations with a Monomeric Recombinant gp 120 Construct Derived from a CCR5/CXCR4-Using Human Immunodeficiency Virus Type 1 Isolate with Sera from Naturally Infected Individuals," <i>J. Virol.</i> 73(2):1740-1745 (1999)
	BL	Beerli <i>et al.</i> , "Maximum-Likelihood Estimation of Migration Rates and Effective Population Numbers in Two Populations Using a Coalescent Approach," <i>Genetics</i> 152(2):763-773 (1999)
	BM	Brandt <i>et al.</i> , "Association of chemokine-mediated block to HIV entry with coreceptor internalization," <i>J. Biol. Chem.</i> 277:17291-17299 (2002)
	BN	Buonaguro <i>et al.</i> , "Heteroduplex Mobility Assay and Phylogenetic Analysis of V3 Region Sequences of Human Immunodeficiency Virus Type 1 Isolates from Gulu, Northern Uganda," <i>J. Virol.</i> 69(12):7971-7981 (1995)
	BO	Burton <i>et al.</i> , "Why do we not have an HIV vaccine and how can we make one?," <i>Nat Med Vaccine Suppl.</i> 4(5):495-498 (1998)
	BP	Cecilia <i>et al.</i> , "Neutralization Profiles of Primary Human Immunodeficiency Virus Type 1 Isolates in the Context of the Coreceptor Usage," <i>J. Virol.</i> 72(9):6988-6996 (1998)

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/BP/	BQ	Chackerian <i>et al.</i> , "Human Immunodeficiency Virus Type 1 Coreceptors Participate in Postentry Stages in the Virus Replication Cycle and Function in Simian Immunodeficiency Virus Infection," <i>J. Virol.</i> 71:3932-3939 (1997)
	BR	Cornelissen <i>et al.</i> , "pol Gene Diversity of Five Human Immunodeficiency Virus Type 1 Subtypes: Evidence for Naturally Occurring Mutations that Contribute to Drug Resistance, Limited Recombination Patterns, and Common Ancestry for Subtypes B and D," <i>J. Virol.</i> 71(9):6348-6358 (1997)
	BS	Crandall <i>et al.</i> , "Empirical Tests of Some Predictions from Coalescent Theory With Applications to Intraspecific Phylogeny Reconstruction," <i>Genetics</i> 134(3):959-969 (1993)
	BT	Database Accession No. AX028621, Sequence 71 from WO 00/29561 (05/25/2000)
	BU	Doria-Rose <i>et al.</i> , "Human Immunodeficiency Type 1 Subtype B Ancestral Envelope Protein Is Functional and Elicits Neutralizing Antibodies in Rabbits Similar to Those Elicited by a Circulating Subtype B Envelope," <i>J. Virol.</i> 77:11563-11577 (2003)
	BV	Edmonson <i>et al.</i> , "Evolution of a Simian Immunodeficiency Virus Pathogen," <i>J. Virol.</i> 72:405-414 (1998)
	BW	Edwards <i>et al.</i> , "Phylogenetically Informative Length Polymorphism and Sequence Variability in Mitochondrial DNA of Australian Songbirds (<i>Pomatostomus</i>)," <i>Genetics</i> 126(3):695-711 (1990)
	BX	Feng <i>et al.</i> , "Progressive sequence alignment as a prerequisite to correct phylogenetic trees," <i>J. Mol. Evol.</i> 35:351-360 (1987)
	BY	Fu, "Estimating Effective Population Size or Mutation Rate Using the Frequencies of Mutations of Various Classes in a Sample of DNA Sequences," <i>Genetics</i> 138(4):1375-1386 (1994)
	CA	Gao <i>et al.</i> , "A Comprehensive Panel of Near-Full Length Clones and Reference Sequences for Non-subtype B Isolates of Human Immunodeficiency Virus Type 1," <i>J. Virol.</i> 72(7):5690-5698 (1998)
	CB	Gao <i>et al.</i> , "HIV-1 clone 92us657.1 from Chicago (USA), tat protein, rev protein, envelope glycoprotein (env) genes, complete cds and vpr protein and nef protein genes, partial cds," retrieved from EBI Database Accession No. U04908 (July 19, 1996)
	CC	Gao <i>et al.</i> , "HIV-1 isolate 714 clone 1 from Baltimore, MD, USA, envelope glycoprotein (env) gene, partial cds," retrieved from EBI Database Accession No. U08450 (May 9, 1994)
	CD	Gao <i>et al.</i> , "HIV-1 isolate 959 clone 18 from Malawi, envelope glycoprotein (env) gene, partial cds," retrieved from EBI Database Accession No. U08453 (May 9, 1994)
	BZ	Gao <i>et al.</i> , "Molecular Cloning and Analysis of Functional Envelope Genes from Human Immunodeficiency Virus Type 1 Sequence Subtypes A through G. The WHO and NIAD Networks for HIV Isolation and Characterization," <i>J. Virol.</i> 70(3):1651-1667 (1996)
	CE	Gao <i>et al.</i> , "Envelope glycoprotein, human immunodeficiency virus 1," retrieved from EBI Database Accession No. Q74749 (Nov. 1, 1996)
	CF	Gao <i>et al.</i> , "Envelope glycoprotein, human immunodeficiency virus," retrieved from EBI Database Accession No. Q70010 (Nov. 1, 1996)
	CG	Gao <i>et al.</i> , "Origin of HIV-1 in the chimpanzee <i>Pan troglodytes troglodytes</i> ," <i>Nature</i> 397(6718):436-441 (1999)
↓	BAA	Gao <i>et al.</i> , "The Heterosexual Human Immunodeficiency Virus Type 1 Epidemic in Thailand is Caused by an Intersubtype (A/E) Recombinant of African Origin," <i>J. Virol.</i> 70(10):7013-7029 (1996)

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/BP/	CH	Gillespie, "Genetic Drift in an Infinite Population: The Pseudo hitchhiking Model," <i>Genetics</i> 155(2):909-919 (2000)
	CI	Goddard <i>et al.</i> , "Recurrent invasion and extinction of a selfish gene," <i>Proc. Natl. Acad. Sci. USA</i> 96(24):13880-13885 (1999)
	CJ	Graham <i>et al.</i> , "A Coalescent Model of Ancestry for a Rare Allele," <i>Genetics</i> 156(1):375-384 (2000)
	CK	Gupta <i>et al.</i> , "Adjuvants--a balance between toxicity and adjuvanticity," <i>Vaccine</i> 11:293-306 (1993)
	CL	Henikoff <i>et al.</i> , "Amino acid substitution matrices from protein blocks," <i>Proc. Natl. Acad. Sci. USA</i> 89:10915-10919 (1992)
	CM	Higgins <i>et al.</i> , "CLUSTAL: a package for performing multiple sequence alignment on a microcomputer," <i>Gene</i> 73:237-244 (1988)
	CN	Higgins <i>et al.</i> , "Fast and sensitive multiple sequence alignments on a microcomputer," <i>Comput. Appl. Biosci.</i> 5:151-153 (1989)
	CO	Itescu <i>et al.</i> , "Human immunodeficiency virus type 1 strains in the lungs of infected individuals evolve independently from those in peripheral blood and are highly conserved in the C-terminal region of the envelope V3 loop," <i>Proc. Natl. Acad. Sci. USA</i> 91(24):11378-11382 (1994)
	CP	Karlin <i>et al.</i> , "Applications and statistics for multiple high-scoring segments in molecular sequence," <i>Proc. Natl. Acad. Sci. USA</i> 90:5873-5887 (1993)
	CQ	Kelly, "An application of population genetic theory to synonymous gene sequence evolution in the human immunodeficiency virus (HIV)," <i>Gen. Res.</i> 64:1-9 (1994)
	CR	Kimpton <i>et al.</i> , "Detection of Replication-Competent and Pseudotyped Human Immunodeficiency Virus with a Sensitive Cell Line on the Basis of Activation of an Integrated β -Galactosidase Gene," <i>J. Virol.</i> 66: 2232-2239 (1992)
	CS	Korber <i>et al.</i> , "Limitations of a Molecular Clock Applied to Considerations of the Origin of HIV-1," <i>Science</i> 280(5371):1868-1871 (1998)
	CT	Kornfeld <i>et al.</i> , "Cloning of HTLV-4 and its relation to simian and human immunodeficiency viruses" <i>Nature</i> 326:610-613 (1987)
	CU	Kuiken <i>et al.</i> , "Increasing antigenic and genetic diversity of the V3 variable domain of the human immunodeficiency virus envelope protein in the course of the AIDS epidemic," <i>Proc. Natl. Acad. Sci. USA</i> 90(19):9061-9065 (1993)
	CV	Kuiken <i>et al.</i> , "HIV Sequence Compendium, Part II. HIV-1/SIVcpz Complete Genomes" 279-466 (2001)

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/BP/	CA	Learn et al., "Maintaining the Integrity of Human Immunodeficiency Virus Sequence Database," <i>J. Virol.</i> 70:5720-5730 (1996)
	CB	Leitner et al., "Tempo and Mode of Nucleotide Substitutions in gag and env Gene Fragments in Human Immunodeficiency Virus Type 1 Populations with a Known Transmission History," <i>J. Virol.</i> 71(6):4761-4770 (1997)
	CC	Letvin, "Progress in the Development of an HIV-1 Vaccine," <i>Science</i> 280(5371):1875-1880 (1998)
	CD	Lole et al., "Full-Length Human Immunodeficiency Virus Type 1 Genomes from Subtype C-Infected Seroconverters in India, with Evidence of Intersubtype Recombination," <i>J. Virol.</i> 73(1):152-160 (1999)
	DA	Long et al., "HIV Type 1 Variants Transmitted to Women in Kenya Require the CCR5 Coreceptor for Entry, Regardless of the Genetic Complexity of the Infecting Virus," <i>AIDS Res. Hum. Retroviruses</i> 18:567-576 (2002)
	DB	Louwagie et al., "Genetic Diversity of the Envelope Glycoprotein from Human Immunodeficiency Virus Type 1 isolates of African Origin," <i>J. Virol.</i> 69(1):263-271 (1995)
	DC	McCutchan et al., "Envelope protein human immunodeficiency virus 1," retrieved from EBI Database Accession No. 092763 (Nov. 1, 1998)
	DD	McCutchan et al., "Diversity of the Human Immunodeficiency Virus Type 1 Envelope Glycoprotein in San Francisco Men's Health Study Participants," <i>AID Research and Human Retroviruses</i> 14(4):329-337 (1998)
	DE	Needleman et al., "A General Method Applicable to the Search for Similarities in the Amino Acid Sequence of Two Proteins," <i>J. Mol. Biol.</i> 48:443-453 (1970)
	DF	Pearson et al., "Improved tools for biological sequence comparison," <i>Proc. Natl. Acad. Sci. USA</i> 85:2444-2448 (1988)
	DG	Penny et al., "Envelope glycoprotein, human Immunodeficiency virus 1," retrieved from EBI Database Accession No. Q73343 (Nov. 1, 1996)
	DH	Penny et al., "env Gene Sequences of Primary HIV Type 1 isolates of Subtypes B, C, D, E, and F Obtained from the World Health Organization Network for HIV isolation and Characterization," <i>AIDS Research and Human Retroviruses</i> , U.S. 12(8):741-747 (1996)
	DI	Posada et al., "Bioinformatics Applications Note - Model test: testing the model of DNA substitution," <i>Bioinformatics</i> 14:817-818 (1998)
	DJ	Rambaut et al., "Seq-Gen: an application for the Monte Carlo simulation of DNA sequence evolution along phylogenetic trees," <i>Comput. Appl. Biosci</i> 13:235-238 (1997)
	DK	Richman et al., "Self-incompatibility alleles from <i>Physalis</i> : Implications for historical inference from balanced genetic polymorphisms," <i>Proc. Natl. Acad. Sci. USA</i> 96(1):168-172 (1999)
	DL	Robertson et al., "Recombination in HIV-1," <i>Nature</i> 374(6518):124-126 (1995)
	DM	Robinson et al., "Simian Immunodeficiency Virus DNA Vaccine Trial in Macaques," <i>Ann. New York Acad. Sci</i> 27:209-211 (1995)
	DN	Robinson, "DNA vaccines for immunodeficiency viruses," <i>AIDS</i> 11(A):S109-S119 (1997)
↓	DO	Rodrigo et al., "Coalescent estimates of HIV-1 generation time in vivo," <i>Proc. Natl. Acad. Sci. USA</i> 96(5):2187-2191 (1999)

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/BP/	DP	Schaal <i>et al.</i> , "Gene genealogies and population variation in plants," <i>Proc. Natl. Acad. Sci. USA</i> 97(13):7024-7029 (2000)
	DQ	Schadt <i>et al.</i> , "Computational Advances in Maximum Likelihood Methods for Molecular Phylogeny," <i>Genome Research</i> 8(3):222-233 (1998)
	DR	Shankarappa <i>et al.</i> , "Consistent Viral Evolutionary Changes Associated with the Progression of Human Immunodeficiency Virus Type 1 Infection," <i>J. Virol.</i> 73(12):10489-10502 (1999)
	DS	Sherry <i>et al.</i> , "Alu Evolution in Human Populations: Using the Coalescent to Estimate Effective Population Size," <i>Genetics</i> 147(4):1977-1982 (1997)
	DT	Slatkin, "Gene Genealogies Within Mutant Allelic Classes," <i>Genetics</i> 143(1):579-587 (1996)
	DU	Smith <i>et al.</i> , "Human Rhinovirus Type 14: Human Immunodeficiency Virus Type 1 (HIV-1) V3 Loop Chimeras from a Combinatorial Library Induce Potent Neutralizing Antibody Responses Against HIV-1," <i>J. Virol.</i> 72(1):651-659 (1998)
	DV	Smith <i>et al.</i> , "Comparison of Biosequences," <i>Adv. Appl. Math.</i> 2:482-489 (1981)
	DW	Smith <i>et al.</i> , "The genetic data environment an expandable GUI for multiple sequence analysis," <i>CABIOS</i> 10:671-675 (1994)
	DX	Takehisa <i>et al.</i> , "Human Immunodeficiency Virus Type 1 Intergroup(M/O) Recombination in Cameroon," <i>J. Virol.</i> 73(8):6810-6820 (1999)
	DY	Theodore <i>et al.</i> , "Short Communication - Construction and Characterization of a Stable Full-Length Macrophage-Tropic HIV Type 1 Molecular Clone That Directs the Production of High Titers and Progeny Virions," <i>AIDS Res. Human Retrovir.</i> 12:191-194 (1996)
	DZ	Thompson <i>et al.</i> , "CLUSTAL W: improving the sensitivity of progressive multiple sequence alignment through sequence weighting, position-specific gap penalties and weight matrix choice," <i>Nucleic Acids Res.</i> 22:4673-4680 (1994)
	EA	Upchurch <i>et al.</i> , "Position and degree of mismatches and the mobility of DNA heteroduplexes," <i>Nucleic Acids Res.</i> 28(12):E69 (2000)
	EB	Verma <i>et al.</i> , "Gene Therapy - promises, problems and prospects," <i>Nature</i> 389:239-242 (1997)
	EC	Yasutomi <i>et al.</i> , "Simian Immunodeficiency Virus-Specific Cytotoxic T-Lymphocyte Induction through DNA Vaccination of Rhesus Monkeys," <i>J. Virol.</i> 70:678-681 (1996)
	ED	Yu <i>et al.</i> , "Phenotypic and Genotypic Characteristics of Human Immunodeficiency Virus Type 1 from Patients with AIDS in Northern Thailand," <i>J. Virol.</i> 69(8):4649-4655 (1995)
	EE	Zhu <i>et al.</i> , "An African HIV-1 sequence from 1959 and implications for the origin of the epidemic," <i>Nature</i> 391(6667):594-597 (1998)
	EF	The AIDS Knowledge Bases - AIDS Vaccines - Internet website: http://www.hivinsite.ucsf.edu (printed Aug. 17, 1999)
	EG	The NIAID Division of AIDS, Science, Vaccine Concepts/Designs, Recombinant Viral Surface Protein Vaccines - Internet website: http://www.niaid.nih.gov (printed Aug. 16, 1999)
	EH	The NIAID Division of AIDS, General Info, Basic Information About AIDS and HIV Internet website: http://www.niaid.nih.gov (printed August 16, 1999)
	EI	The NIAID Division of AIDS, Science, Vaccine Concepts/Designs, Naked DNA Vaccines - Internet website: http://www.niaid.nih.gov (printed Aug. 16, 1999)
↓	EJ	The NIAID Division of AIDS, Science, Vaccine Designs/Concepts - Internet website: http://www.niaid.nih.gov (printed Aug. 16, 1999)

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/BP/	EL	International AIDS Vaccine Initiative – Scientific Areas of Emphasis – Internet website: http://www.iavi.org (printed Aug. 16, 1999)

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